CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 89-099

NPDES NO. CA0037613

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

DUBLIN SAN RAMON SERVICES DISTRICT
PLEASANTON
ALAMEDA COUNTY

AND

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY

ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. The Dublin San Ramon Services District, by application dated January 6, 1989, has submitted a report of waste discharge for reissuance of NPDES Permit No. CA0037613 to include expansion of present treatment capacity.

2. The District presently discharges an average dry weather flow of 7.5 million gallons per day (mgd) flow from its secondary plant which has a dry weather design capacity of 9.0 mgd. The discharger will have a dry weather design capacity of 11.5 mgd after certification of its 1988 expansion. Existing treatment consists of primary sedimentation using clarifiers, flow equalization, activated sludge, secondary clarification, and chlorination. Sludge is anaerobically digested, stabilized in facultative lagoons, and plowed into the ground at an adjacent 60 acre dedicated land disposal area. Plant expansion involved modifying and expanding headworks units, increasing flow equalization capacity, and adding chlorination facilities. This facility treats domestic and industrial wastewaters from the Cities of Dublin and Pleasanton and the South San Ramon and Camp Parks service area.

3. The District transports the treated wastewater to the Livermore-Amador Valley Water Management Agency (LAVWMA) export pump station where it combines with the City of Livermore's treated wastewater. The combined wastewaters flow to two flow-equalization basins, receive additional chlorination and are pumped via LAVWMA's pipeline to the East Bay Discharge Authority's (EBDA) system. EBDA is responsible for the combined transport, dechlorination, and discharge of LAVWMA's treated wastewater by contractual agreement and of treated wastewaters from EBDA's member agencies. The discharge point is a deepwater diffuser located 23.5 feet below the surface (at MLLW) in Lower San Francisco Bay west of the Oakland Airport at longitude 122 18' west, latitude 37 42' north. A diagram is included in this Order.

4. LAVWMA is a joint powers agency created in 1974 for wastewater management planning for the service areas of Livermore, Pleasanton, and Dublin-San Ramon Services District. By contractual agreement, the Dublin-San Ramon Services District is responsible for operating and maintaining LAVWMA's export pump station and pipeline facilities and for performing and submitting the self-monitoring requirements for the LAVWMA facilities.

5. Both EBDA and LAVWMA are Joint Exercise of Powers Agencies which exist under Joint Exercise of Powers Agreements (JEPA) to operate treated wastewater transport and disposal facilities.

   Since LAVWMA and its tributary agencies are not signatories to the EBDA JEPA, the EBDA-LAVWMA agreement empowers EBDA to monitor discharges by LAVWMA into the EBDA system and requires LAVWMA, as a condition of continuing service, to comply with all requirements prescribed by the Board at the individual treatment plants, except residual chlorine, for which EBDA will be responsible.

   The LAVWMA JEPA limits that Joint Agency to providing and operating the transport (and auxiliary) facilities from its member agencies' treatment plants to EBDA. LAVWMA is not empowered to take actions to secure member agency compliance with Board requirements. The District and LAVWMA will be referred to hereafter as the discharger.

6. The discharger is presently governed by Waste Discharge Requirements (NPDES Permit), Order No. 84-31, which allows discharge into Lower San Francisco Bay of treated wastewater from the District. Separate waste discharge requirements (NPDES Permits) for the City of Livermore and EBDA will be reissued at the same time.

7. LAVWMA's export pump station can export up to 21.0 mgd of treated wastewater, or 1.3 mgd more than its contracted capacity of 19.7 mgd in the EBDA system. LAVWMA is allowed to discharge up to 1.3 mgd of treated wastewater to San Lorenzo Creek during peak wet weather periods pursuant to a separate Board Order (NPDES Permit No. CA0038679).

8. The Board amended its Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986, and the State Water Resources Control Board approved it on May 21, 1987. The Basin Plan contains water quality objectives for Lower San Francisco Bay and contiguous waters.

9. The existing and potential beneficial uses of Lower San Francisco Bay and contiguous water bodies are:

   Water contact and non-contact recreation
   Wildlife habitat
   Preservation of rare and endangered habitat
   Estuarine habitat
   Fish migration and spawning
   Industrial service and process supply
   Shellfish harvesting
   Navigation
   Commercial and sport fishing

10. Disposal of the discharger's treated wastewater into the EBDA system outside of the Livermore-Amador Valley complies with Basin Plan surface water objectives for Alameda Creek, ground water objectives for the Niles Cone groundwater basin, and discharge prohibitions for these objectives.

11. The District's lagoons and land disposal facilities have the potential for discharge to surface or groundwater and thus constitute a threatened discharge pursuant to Section 13260 of the Water Code.

12. An Operations and Maintenance Manual is maintained by the discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, facilities, and recommended operating strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, this manual should be kept updated to reflect significant changes in plant facilities or activities.

13. This Order serves as an NPDES Permit, reissuance of which is exempt from the provision of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

14. The discharger and interested agencies and persons have been notified of the Board's intent to reissue waste discharge requirements for the existing discharge and have been provided with the opportunity for a public hearing and the opportunity to submit their written views and recommendations.

15. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act, as amended and regulations and guidelines adopted thereunder shall comply with the following:

A. Discharge Prohibitions

1. Bypass or overflow of untreated or partially treated wastewater to waters of the State either at the treatment plant or from any of the joint facilities or individual member collection system and pump stations tributary to the treatment plant is prohibited.

2. The average dry weather flow shall not exceed 9.0 mgd. Actual average dry weather flow shall be determined for compliance with this prohibition over three consecutive dry weather months each year.

   This flow limit will be raised to 11.5 mgd if the District demonstrates to the Executive Officer's satisfaction that the plant can reliably comply with permit requirements at this higher capacity.

3. Discharge at any point at which the wastewater does not receive an initial dilution of at least 10:1 is prohibited.

4. Discharge of treated wastewaters to any surface water other than Lower San Francisco Bay through the LAVWMA transmission line and EBDA interceptor and deepwater outfall is prohibited unless in compliance with another Board order (e.g. NPDES Permit for intermittent discharge of some peak wet-weather flows into San Lorenzo Creek).

B. Effluent Limitations

1. Effluent discharged shall not exceed the following limits:

Constituents	Units	Monthly Average	Weekly Average	Daily Maximum	Instantaneous Maximum
a. Settleable Matter	ml/L-hr	0.1	-	-	0.2
b. Carbonaceous BOD	mg/L	25	40	-	-
c. Total Suspended Solids	mg/L	30	45	-	-
d. Oil and Grease	mg/L	10	-	20	-

2. The arithmetic mean of the biochemical oxygen demand (5-day, 20C) and suspended solids values, by weight for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected approximately the same times during the same period (i.e. 85 percent removal).

3. The survival of test organisms acceptable to the Executive Officer in 96-hour bioassays of the effluent shall achieve a 90 percentile value of not less than 50% survival based on the ten most recent consecutive samples. Samples may be dechlorinated in the laboratory prior to testing. This limit may be met at the EBDA outfall.

4. Representative samples of the effluent shall not exceed the following limits (1):

Constituent	Unit	Daily Average
Arsenic	µg/L	200
Cadmium	µg/L	30
Chromium(VI) (4)	µg/L	110
Copper	µg/L	200
Cyanide	µg/L	25
Lead	µg/L	56
Mercury	µg/L	1
Nickel	µg/L	71
Silver	µg/L	23
Zinc	µg/L	580
Phenols	µg/L	500
PAHs(2)	µg/L	150
Selenium(3)	µg/L	-

Notes: (1) These limits are intended to be achieved through secondary treatment, source control, and application of pretreatment standards.
(2) Polynuclear aromatic hydrocarbons
(3) Selenium limit to be established.
(4) Dischargers may meet this limit as total chromium.

5. The running median value for the MPN of total coliform in any five (5) consecutive effluent samples shall nott exceed 240 coliform organisms per 100 milliliters. Any single sample shall not exceed 10,000 MPN/100 ml.

C. Sludge Storage Requirements

1. Sludge storage or discharge shall not cause waste material to be in a position where it is, or can be carried from the sludge lagoons and deposited in the waters of the state.

2. Sludge lagoons shall have facilities adequate to divert surface runoff from adjacent areas, to protect boundaries of the site from erosion, and to prevent any conditions that would cause drainage from the materials in the storage site. Adequate protection is defined as protection from at least a 100-year storm.

3. The discharge to a sludge lagoon of waste other than sewage sludge produced by the discharger facility is prohibited.

4. The storage of sludge shall not cause the degradation of groundwaters.

5. The discharger shall prepare a hydrogeologic report according to the following schedule:

Task	Deadline
Submit workplan aceptable to the Executive Officer	January 1, 1990
Submit hydrogeologic report	24 months after Executive Officer approves workplan

The report's purpose is to evaluate the threat of the sludge lagoons to waters of the State and concentrate on the risk of contaminating groundwater. The report shall include an analysis of sludge constituents, a hydrogeologic report, and an analysis of any existing groundwater contamination.

6. The Board may amend this permit prior to the expiration date, if changes occur in applicable state and federal sludge regulations.

D. Provisions

1. The requirements prescribed by this Order supersede the requirements prescribed by Order No. 84-31. Order No. 84-31 is hereby rescinded.

2. Where concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall apply:

   Mass Emission Limit in lbs/day = Concentration limit in mg/l x 8.34 x Actual Flow in mgd over the time interval for which the limit applies.

3. The discharger shall comply with all sections of this Order immediately upon adoption. The District will have primary responsibility for compliance. LAVWMA will be responsible only for compliance with parameters under its contract (e.g. no bypass from LAVWMA pump station or force main).

4. Neither the collection, treatment, storage, transmission, or discharge facilities shall create a nuisance as defined in the California Water Code.

5. The discharger shall review and update its Operations and Maintenance Manual annually, or in the event of significant facility or process changes, shortly after such changes have occurred. Annual revisions, or letters stating that no changes are needed, shall be submitted to the Board by April 15 of each year.

6. The discharger shall annually review and update its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

7. The discharger shall implement and enforce its approved pretreatment program in accordance with Board Order No. 84-60 and its amendments thereafter. The discharger's responsibilities include, but are not limited to:

    a. Enforcement of National Pretreatment Standards (e.g. prohibited discharges, Categorical Standards, local limits) in accordance with 40 CFR 403.5 and Section 307(b) and (c) of the Clean Water Act.

    b. Implementation of the pretreatment program in accordance with legal authorities, policies, procedures, and financial provisions described in the General Pretreatment Regulations (40 CFR 403) and its approved pretreatment program.

    c. Submission of annual and quarterly reports to EPA and the State as described in Board Order 84-60 and its amendments thereafter.

8. The discharger shall comply with the attached Self-Monitoring Program. The Executive Officer may make minor amendments to it pursuant to federal regulations (40 CFR 122.63).

9. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated December 1986.

10. This Order expires June 21, 1994. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as applicable for issuance of new waste discharge requirements.

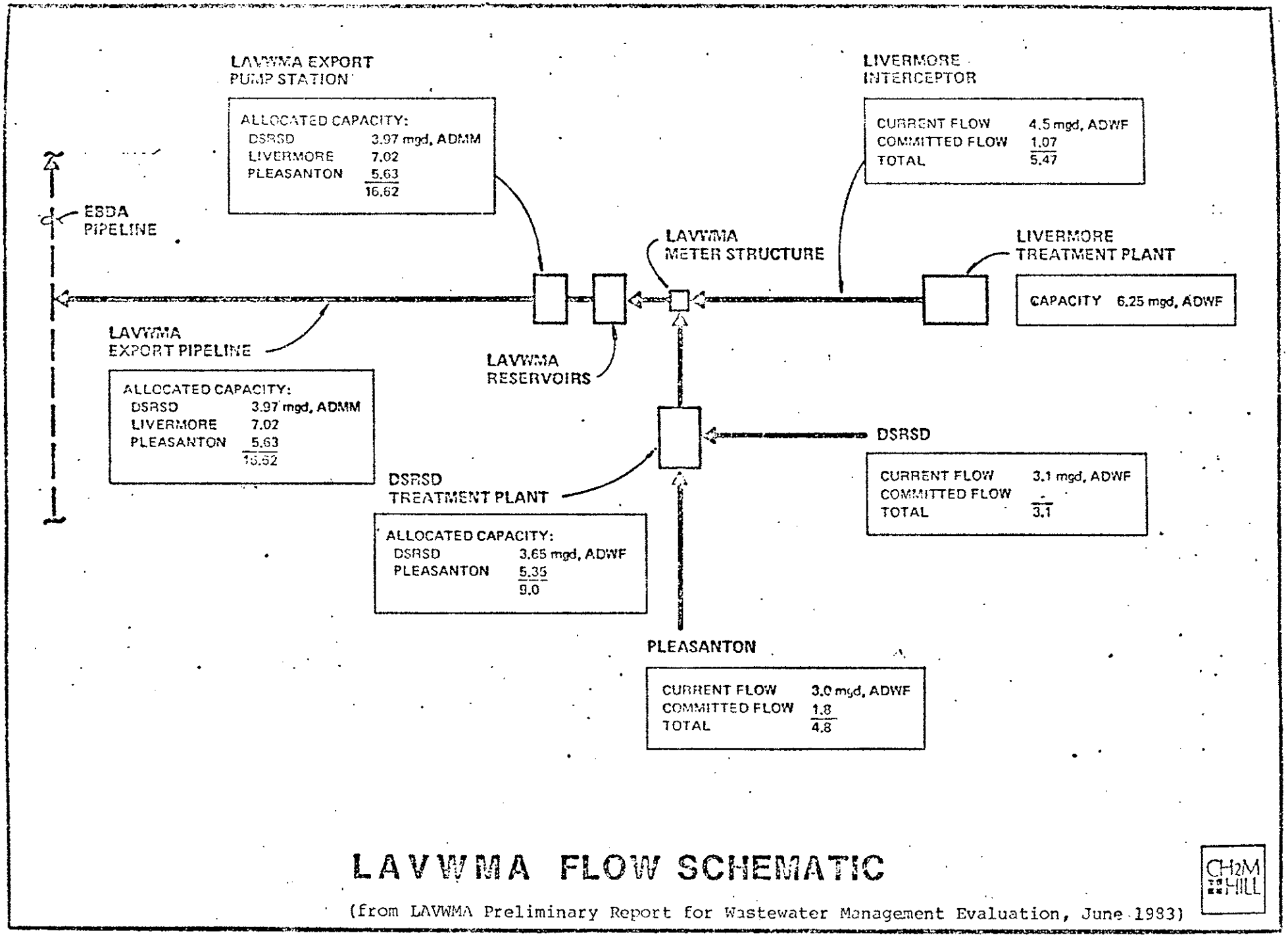
11. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Steven R. Ritchie, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on 21 June, 1989.

Steven R. Ritchie
Executive Officer

Attachments:

LAVWMA Flow Schematic
Standard Provisions and Reporting Requirements, December 1986
Self-Monitoring Program



LAVWMA FLOW SCHEMATIC

(from LAVWMA Preliminary Report for Wastewater Management Evaluation, June 1983)

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

DUBLIN SAN RAMON SERVICES DISTRICT

AND

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY

NPDES NO. CA0037613

ORDER NO. 89-099

CONSISTING OF

PART A, DATED DECEMBER 1986

AND PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

Station	Description
A-1	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment or sidestream.

B. EFFLUENT

Station	Description
E-1	At any point in the treatment plant facilities at which adequate disinfection has taken place and just prior to where the individual facility transfers control of its effluent to LAVWMA facilities.

C. LAND OBSERVATIONS (TREATMENT PLANT AND LAVWMA EXPORT PUMP STATION)

Station	Description
P-1 through P-n	Located at the corners and midpoints of the perimeter fenceline surrounding the discharger's and LAVWMA's treatment facilities or sludge lagoons (A sketch showing the locations of these stations will accompany each report).

D. OVERFLOWS AND BYPASSES (TREATMENT PLANT, COLLECTION SYSTEM,INTERCEPTORS AND EXPORT LINE)

Station	Description
O-1 through O-n	Bypass or overflows from manholes, pump stations, interceptor, or collection system or storage reservoirs.

II. SCHEDULE OF SAMPLING AND ANALYSIS

A. The schedule of sampling and analysis shall be that given as Table I.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Regional Board's

Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 89-099.

2. Has been ordered by the Regional Board on 21 June, 1989.

3. May be revised pursuant to CFR 122.36 or by the Regional Board.

Steven R. Ritchie
Executive Officer

Attachment:
Table 1

TABLE 1

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS (1) (7)

SAMPLING STATION	A-1	E-1	E-1	E-1	All P Sta.	All O Sta.
TYPE OF SAMPLE	C-24	G (3)	C-24	Cont.	O	O
Flow Rate (mgd)	D			D		
CBOD, 5-day, 20 C (mg/L & kg/day) (2)	5/W		5/W			
Chlorine Residual & Dosage (mg/L & kg/day) (6)		H or Cont.				
Settleable Matter (ml/hr. & cu.ft./day)		D				
Total Suspended Matter (mg/L & kg/day) (2)	5/W		5/W			
Oil and Grease (mg/L & kg/day) (3)		2/M				
Coliform (total or fecal) (MPN/100 ml) per req't		3/W				
Fish toxicity-96 hr. Surv'l in undiluted waste			2/M (4)			
Ammonia Nitrogen (mg/L & kg/day)			M			
Nitrate Nitrogen (mg/L & kg/day)						
Nitrite Nitrogen (mg/L & kg/day)						
Total Organic Nitrogen (mg/L & kg/day)						
Total Phosphate (mg/L & kg/day)						
Turbidity (Jackson Turbidity Units)						
pH (units)		D				
Dissolved Oxygen mg/L & % saturation						
Temperature (C)		D				
Apparent Color (color units)						
Secchi Disc (inches or cm.)						
Sulfides (if DO<5.0 mg/L) Total & Dissolved (mg/L)						
Arsenic (mg/L & kg/day)			M (5)			
Cadmium (mg/L & kg/day)			M (5)			

SAMPLING STATION	A-1		E-1		All P Sta.	All O Sta.
TYPE OF SAMPLE	C-24	G (3)	C-24	Cont.	O	O
Chromium VI (mg/L & kg/day)			M (5)			
Cyanide (mg/L & kg/day)			M (5)			
Silver (mg/L & kg/day)			M (5)			
Lead (mg/L & kg/day)			M (5)			
Mercury (mg/L & kg/day)			M (5)			
Nickel (mg/L & kg/day)			M (5)			
Zinc (mg/L & kg/day)			M (5)			
Selenium (mg/L & kg/day)			M (5)			
Phenolic Compounds (mg/L & kg/day)			M (5)			
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/L & kg/day)			M (5)			
All Applicable Standard Observations		D			2/W	E

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = 24 hour composite sample
C-X = X hour composite sample (used when discharge does not continue for 24 hour period)
Cont. = continuous sampling
DI = depth-integrated sample
BS = bottom sediment sample
O = observation

TYPES OF STATIONS

I = intake and/or water supply stations
A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
P = treatment facilities perimeter stations
L = basin and/or pond levee stations
B = bottom sediment stations
G = groundwater stations

FREQUENCY OF SAMPLING

E = each occurrence
H = once each hour
D = once each day
W = once each week
M = once each month
Y = once each year

2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months

2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/Y = once in March and once in September
Q = quarterly, once in March, June, Sept., and December

Cont = continuous

NOTES FOR TABLE 1

1. During any day when bypassing occurs from any treatment unit(s) in the plant or to the emergency outfall, the monitoring program for the effluent and any nearshore discharge shall include the following in addition to the above schedule for sampling, measurement and analyses:

   a. Composite sample for BOD and Total Suspended Solids.

   b. Grab samples for Total Coliform, Settleable Matter, and Oil and Grease.

   c. Continuous monitoring of flow.

   d. Continuous or every two hour monitoring of chlorine residual.

The above requirement will not apply if a portion of the plant's flow bypasses the secondary treatment unit during peak wet weather periods in order to prevent solids washout.

2. Percent removal (effluent vs. influent) shall also be reported.

3. Grab samples shall be taken on day(s) of composite sampling.

4. Fish toxicity test compliance shall be demonstrated in the EBDA combined outfall. Compliance bioassays shall be performed using two fish species in parallel flow through bioassay tests. One shall be the three-spine stickleback and the other shall be the fathead minnow. Chlorinated samples may be used following dechlorination.

In the event that a fish toxicity violation is detected, the discharger shall also perform toxicity tests at the individual treatment plant until compliance is achieved. The individual plants may use static renewal tests in lieu of flow through tests.

5. If any sample is in violation of limits, sampling shall be increased for that parameter to weekly until compliance is demonstrated in two successive samples. The Executive Officer may reduce basic sampling frequency after one year if lesser frequencies will provide statistically valid results.

6. Chlorine residual analyzers shall be calibrated against grab samples as frequently as necessary to maintain accurate control and reliable operation.

7. Monthly sampling dates and approximate times shall coincide with receiving water monitoring conducted by EBDA.

8. Sludge disposal shall be reported monthly. Daily records shall be kept of the quantity (cu. yds. or cu. ft.) and solids content (%) of dewatered sludge disposed of and the location of disposal.